

REMARKS/ARGUMENTS

Claims 1-4, 6-8, 19, 21-25 and 27-34 are pending in the application. Claims 5, 9-18, 20 and 26 were previously cancelled. Through this Amendment, claims 1, 3-4, 19, 21-23, 25, and 27 have been amended. No new matter has been added. As explained in more detail below, Applicants submit that pending claims 1-4, 6-8, 19, 21-25 and 27-34 are in condition for allowance and respectfully request such action.

Claim Amendments

Through this Amendment, independent claim 1 has been amended to recite an apparatus that is configured to transmit a frequently requested video asset “to at least one primary partition of each of at least at least two servers...in response to an infrequently requested video asset becoming frequently requested.” Similarly, independent claim 19 recites transmitting the frequently video asset to “each of the plurality of servers” and claim 25 recites transmitting the frequently video asset to “at least the local first server and the remote second server.” Support for these amendments may be located throughout the application as filed, including for example, page 12, ll. 3-9 and page 18, ll. 14-26.

Claim 1 has further been amended to indicate that in response to a frequently requested video asset becoming infrequently requested, the apparatus is configured to transmit that asset to at least one secondary partition of at least one, “but less than the all of, the plurality of servers and removing the infrequently requested video assets from the primary partitions.” Similarly, Claims 19 and 25 have also been amended to recite elements for transmitting the video asset to a plurality, but not all, of the recited servers. Support for these amendments may be located throughout the application as filed, including for example, page 12, ll. 3-9 and page 18, ll. 14-26.

Claim 1 has also been amended to indicated that each of the servers act “as a local server to a respective group of user equipment devices via an access network and a remote server to at least one other group of user equipment devices.” Claims 19 and 25 recite similar limitations. Support for these amendments may be located throughout the

application as filed, including for example, FIGS. 1-3, 5 and the respective paragraphs of the application.

In view of the foregoing, Applicants respectfully request entry of the amendments onto the record.

Rejections under 35 U.S.C. 103

Claims 1-4, 6-8, 19, 21-25 and 27-34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hokanson (US 6094680) in view of Albrecht (US 5999351). Applicants respectfully request reconsideration in view of the Remarks below.

Independent claims 1, 19 and 25 currently recite the selection and transmission of a frequently requested asset “in response to [that] video asset becoming frequently requested.” These features are not taught, disclosed or suggested by Hokanson or Albrecht (either alone or in combination with any other art of record). Instead, Hokanson is directed towards “value” driven analysis that does not transmit assets “in response to an infrequently requested video asset becoming frequently requested.” When describing the deficiencies of the prior art in the Background, Hokanson complains that prior systems do not “make any value determination that is useful to an operator who provides the data.” (col. 2, ll. 24-25, emphasis added). Instead of transmitting assets “in response to...becoming frequently requested,” Hokanson considers whether “the requests are being handled in a reasonable time frame and at an acceptable cost (*i.e.*, indicating compliance with the cost/availability balance, or the “yes” branch from step 86)” wherein highly requested assets are transmitted “[t]o correct the non-compliance with the cost/availability balance.” (col. 7, ll. 56-57, emphasis added).

Albrecht was only added to show the use of different partitions, and does not change the value determination of Hokanson. For at least this reason alone, Applicants respectfully submit that neither Hokanson nor Albrecht, either alone or in combination with any other art of record, teach, disclose or suggest independent claims 1, 19, and 25. The dependent claims (2-4, 6-8, 20- 21-24 and 27-34) are allowable for at least the same reasons in addition to the novel features recited therein.

Independent claims 1, 19 and 25 further recite the transmittal of the asset “in response to [that] video asset becoming frequently requested.” Specifically, the asset is transmitted:

- “to at least one primary partition of each of at least two servers.” (Claim 1);
- “at least one primary partition of at least [a] local first server and [a] remote second server (Claim 25); or
- “to at least one primary partition of each of the plurality of servers, wherein each server serves as a local server to a respective group of user equipment devices via an access network and a remote server to at least one other group of user equipment devices.” (Claim 19).

In contrast, Hokanson’s transmitted files are transmitted to a single local cache (and/or to a homogenous device), not to a primary partition located on at least two servers (claim 1), or at least one primary partition of “each” server (claim 19), or to at least a local server as well as a remote second server (*see* claim 25).

As another point of distinction, neither reference discloses a transmission “to a primary partition of each of at least two servers,” as recited in claim 1. Hokanson further discloses that “[o]ne technique is to move the data from one server to another to make it more readily available to the requesting clients.” (col. 9, ll. 49-51, *emphasis added*). Moving assets from one computer to another does not teach, disclose or suggest the recited element transmitting the asset to a primary partition of each of two or more servers (claim 1), or to a primary partition of “each” server (claim 19), or to a local server as well as a remote second server (*see* claim 25). In fact, Hokanson teaches against such features, as the reference is directed towards “value” determinations to prevent incurring costs of transmitting data. (See, *e.g.*, col. 2, ll. 24-25 and col. 7, ll. 56-57).

Hokanson discloses transmission among storage hierarchies, explaining that storage “on the local host server to which the client is connected, as opposed to other servers in the cluster” provides for quicker access. Further, Hokanson explains that “[t]he network manager moves data between the different storage hierarchies according to their cost/availability contribution.” (col. 9, ll. 61-63, *emphasis added*). Thus, moving assets between hierarchies on a local server due to their cost/availability contribution does not teach, disclose or suggest transmitting the asset to a primary partition of each of

two or more servers (claim 1), or to a primary partition of “each” server (claim 19), or to a local server as well as a remote second server (*see* claim 25).

Hokanson describes “[a]nother technique” that forms “copies available on the system”, however, Hokanson expressly teaches that this technique “configure[s] a storage hierarchy as a homogenous array of storage devices.” (col. 10, ll. 1-2, *emphasis added*). This is consistent with Hokanson’s Background, which expressly denounces hierarchical storage management systems across different devices, stating: “HSM [hierarchical storage systems] are not conveniently scalable to large network systems, such as the Internet, where vast pools of information are widely dispersed among many sites.”¹

Albrecht does not cure these deficiencies of Hokanson. For at least this reason alone, Applicants respectfully submit that neither Hokanson nor Albrecht, either alone or in combination with any other art of record, teach, disclose or suggest independent claims 1, 19, and 25. The dependent claims (2-4, 6-8, 20- 21-24 and 27-34) are allowable for at least the same reasons in addition to the novel features recited therein.

Independent claims 1, 19, and 25 further recite the transmission of infrequently requested assets. Specifically, “in response to a frequently requested video asset becoming infrequently requested,” that asset is transmitted “to at least one secondary partition of at least one, but less than the all of, the plurality of servers and removing the infrequently requested video assets from the primary partitions” (Claim 1; *see also* claim 19 and 25). Further, as recited in claim 19, “each server serves as a local server to a respective group of user equipment devices via an access network and a remote server to at least one other group of user equipment devices.”

In contrast, Hokanson teaches that if:

the requests are being handled in a reasonable time frame and at an acceptable cost (*i.e.*, indicating compliance with the cost/availability balance, or the “yes” branch from step 86), the host computing unit 50

¹ Elsewhere, Hokanson discloses “a collection of heterogeneous storage devices having different associated performance and costs.” However, there is no disclosure of transmitting an asset from a first server “to at least one primary partition of each of at least two servers.” (Claim 1); at least one primary partition of at least [a] local first server and [a] remote second server (Claim 25); or “to at least one primary partition of each of the plurality of servers, wherein each server serves as a local server to a respective group of user equipment devices via an access network and a remote server to at least one other group of user equipment devices.” (Claim 19).

leaves the present collection of resources at the present site (step 88). The processor then continues its monitoring process at step 82.

(Col. 7, ll. 10-16, emphasis added). Thus, Hokanson's implementation does not transmit assets "in response" to request frequencies or thresholds, but instead in response to time and cost considerations. Hokanson does disclose the "removal" (*i.e.*, deletion) or "archive[al]" of infrequently requested assets, however, those skilled in the art will readily appreciate that these are not equivalent to the recited claims of the present application. First, this deletion of assets does not show transmitting the asset "to at least one secondary partition of at least one, but less than the all of, the plurality of servers." Second, the transmission of assets under Hokanson is: 1) not "in response" to being infrequently requested; and 2) the archival as set forth in Hokanson is drastically different than the claimed embodiments. Specifically, as set forth in Hokanson, low level assets may be "archived in off-line storage facilities." (col. 11, ll. 28-29, emphasis added) This is reiterated in other embodiments of Hokanson, which states that: "[t]he resource manager 70 might likewise remove or archive locally stored resources in the event that they can no longer be justified in the cost/availability criteria for the cite." (col. 8, ll. 18-20, emphasis added). "The removal of resources can coincide with the addition of resources that were previously kept at remote cites. In the above example, when the movie information is cached on the local Seattle cite, one or more locally stored resources might concurrently be removed from the offerings of the site. In this manner, resources are reshuffled and re-blended to offer different composites which satisfy shifting demand, while maintaining the cost/availability balance." (col. 8, ll. 21-28, emphasis added). Thus, there are at least three reasons Hokanson is inapplicable.

First, archiving the material in off-line storage, as shown in Hokanson, does not disclose the subject matter of independent claims 1, 19 and 25. Further, in specific regards to claim 19, Applicants cannot locate any teaching in Hokanson that discloses the transmission of an infrequently requested asset "to at least one secondary partition of at least one, but less than the all of, the plurality of servers [in which] each server serves as a local server to a respective group of user equipment devices via an access network and a remote server to at least one other group of user equipment devices."

Second, the archival or removal of Hokanson is not performed in response to becoming infrequently requested, but rather upon the occurrence of the “addition of resources” to that server or device. Specifically, the low level asset is “concurrently” removed upon the addition of resources.

Third, Hokanson considers whether “the requests are being handled in a reasonable time frame and at an acceptable cost (*i.e.*, indicating compliance with the cost/availability balance, or the “yes” branch from step 86)” wherein highly requested assets are transmitted “[t]o correct the non-compliance with the cost/availability balance.”

Albrecht was only cited for drive partitioning, and does not cure the deficiencies of Hokanson. For at least this reason alone, Applicants respectfully submit that neither Hokanson nor Albrecht, either alone or in combination with any other art of record, teach, disclose or suggest independent claims 1, 19, and 25. The dependent claims (2-4, 6-8, 20- 21-24 and 27-34) are allowable for at least the same reasons in addition to the novel features recited therein.

CONCLUSION

All rejections having been addressed, applicant respectfully submits that the instant application is in condition for allowance, and respectfully solicits prompt notification of the same. Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the number set forth below.

Respectfully submitted,

BANNER & WITCOFF, LTD.

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By: /Shawn P. Gorman/
Shawn P. Gorman
Reg. No. 56,197

BANNER & WITCOFF, LTD.
10 South Wacker Drive
Suite 3000
Chicago, IL 60606
Tel: (312) 463-5000
Fax: (312) 463-5001